REMARKS/ARGUMENTS

Claims 1-34 and 36-49 are currently pending and stand rejected as being directed to non-statutory subject matter and as being anticipated. Examiner's rejections are addressed in turn.

Rejection under 35 U.S.C. § 101

Claims 1-34 and 36-49 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Independent claims 1, 48, and 49 clearly recite a practical application for performing steps in a computer system. The practical application is to predict or determine a level of consumption of healthcare resources. As such, consistent with the Patent Office's Flowchart from the Examination Guidelines for Computer-Related Inventions (EGCRI) for determining when a computer-related application meets the requirements of Section 101, since the computer related process is limited to a practical application in the technological arts, the present invention satisfies Section 101. See Examination Guidelines for Computer-Related Inventions, p. 17 and A-2. In particular, predicting a level of consumption of healthcare resources by a plan member is a practical application in a technological art. With reference to the Flowchart in EGCRI, A-2, see Appendix A, the present claim invention satisfies the flowchart steps "A series of steps to be performed on a computer?" and "A machine or manufacture for performing a process." Thus, the next is "Manipulates data representing physical objects or activities to achieve a practical application," which yields "Statutory Subject Matter" in accordance with the Flowchart.

Moreover, Applicants respectfully assert that the proper authority for determining compliance with § 101 for computer-related inventions is set forth in MPEP § 2106 et seq. and the Examination Guidelines for Computer-Related Inventions, rather than the two-prong test suggested by Examiner. See Office Action at 2. Since claims 2-47 depend from claim 1, and therefore incorporate the limitations of claim 1, for the reasons set forth above, these claims cover statutory subject matter under Section § 101.

Furthermore, Applicants respectfully disagree with the Examiner's argument dismissing the limitation "in a computer system":

> In the present case, claim 1 recites "in a computer system" in the preamble. As to technological arts recited in the preamble, mere recitation in the preamble (i.e., intended or field of use) or mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble...Therefore, the preamble is taken to merely recite a field of use.

See Office Action at 3. MPEP § 2111.02, states "Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. ...During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art." In the present case, the limitation "a method in a computer system" clearly "limits the structure of the claimed invention" insofar as it requires a computer system and therefore "must be treated as a claim limitation" in accordance with MPEP § 2111.02.

Rejection under 35 U.S.C. § 102

Claims 48-49 were rejected under 35 U.S.C. § 102(e) as being anticipated by Whiting-O'Keefe. The reference fails to teach each and every element of every claim as required by MPEP § 2131, and for at least this reason the § 102 rejection is unsupported by the art.

Claim 48 recites "computing a score...wherein the act of computing comprises computing a burden of illness" and "using the score to predict healthcare resource consumption by the plan member." Whiting-O'Keefe fails to teach both computing a score and predicting healthcare resource consumption. The reference discloses "estimating likely charges (expenditure of resources) for treating a given patient" and "estimating the financial burden for each illness within each patient..." Col. 2, lines 22-30. Specifically, to estimate a patient's charges for illness treatment, the method of Whiting-O'Keefe solves a series of equations that result in a patient's expected charges (step 139). Col. 12, lines 6-16. However, nowhere does the reference disclose both computing a score *and* predicting a consumption using that score as claimed.

In response to this argument, Examiner first asserted:

> In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., computing a score and predicting a consumption using that score) are not recited in the rejected claim 48. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

See Office Action at 19. Applicants respectfully disagree. Claim 48 plainly recites: "computing a score" and "using the score to predict…consumption."

In response Applicant's argument, Examiner also asserted:

> …Whiting-O'Keefe teaches estimating the charges for treating an illness using multiple linear regression, wherein the act of estimating comprises estimating a burden of illness for each patient based on the forms and other variables to calculate the charges…and using the values to estimate the likely charges (expenditure of resources) for treating a given patient in order to improve the efficiency of the healthcare provider…Further, Whiting-O'Keefe teaches computing charges for sub-illnesses and primary illnesses…

See Office Action at 19-20. Even assuming *arguendo* these assertions are correct, they do not establish that the reference discloses the two distinct steps of "computing a score" and "using the score to predict healthcare resource consumption." Indeed, the reference clearly bypasses the step of computing a score as claimed and merely estimates the expected charges for treating a patient:

> According to the present invention, a mathematical estimate model is built for each of a list of defined primary illnesses. The outcome of expected charges is expressed as a function of model variables and regression coefficients taken or derivable from data within historic records of patient encounters with health providers. The data upon which the variables and coefficients are dependent include data of secondary illnesses and other complicating factors that affect the charges which are a surrogate for medical resources consumed by the diagnostic and treatment processes ordered by physicians and other care givers. A set of regression coefficients is calculated by applying the mathematical model to a historic database of health encounter records of a large population of patients. These regression coefficients are stored in a table. An estimate of charges is then made for an individual patient or group

> of patients by reading from this table the applicable coefficients and using them in the same mathematical model as was used to calculate the coefficients but now with the new patient data.

Col. 2, line 53-Col. 3, line 3. Nowhere does the reference teach a distinct step of "computing a score" that is used to predict resource consumption, and for at least this reason the cited reference fails to teach each and every element of claim 48.

As to Claim 49, which also recites "computing a score," Whiting-O'Keefe fails to teach this limitation for at least the reasons stated above. Claim 49 further recites "using the score to identify plan members to whom preventive measures are recommended." Whiting-O'Keefe fails to disclose any preventive measures. Indeed, the method of Whiting-O'Keefe is intended to facilitate estimating likely treatment charges by reducing variations in estimated outcomes of treatment, col. 2, lines 33-51, not to reduce consumption of healthcare resources with "preventive measures" as claimed.

Rejection under 35 U.S.C. § 103

Claims 1-21, 23-32, and 36-47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong et al. (5,976,082) in view of Simpson (6,266,645). These references fail to teach or suggest all of the claim limitations as required by MPEP § 2143, and therefore the rejection is unsupported by the art. Accordingly, Applicants respectfully request reconsideration of these claims and that the rejection be withdrawn.

The present invention as recited in claim 1 requires computing "a plurality of scores...for each of a plurality of members in a health plan." Unlike the present claimed invention, Wong only analyzes a subset of the members in a health plan. The method of the Wong reference is practiced exclusively in the context of a single disease, namely congestive heart failure, and provides analysis only for those patients with CHF. Moreover, Examiner acknowledges, "It appears Wong calculates scores for members of a health plan, but does not calculate scores for each members [sic] of a health plan..." See Office Action at 7. Rather, Examiner relies on the Simpson reference as teaching this claim limitation: "Simpson discloses calculating scores for each of a plurality of members in a health plan." Id (emphasis added).

Applicants respectfully disagree with this characterization of Simpson. The Simpson reference is explicitly directed towards performing analysis on a subset of members of a health plan, not "for each of a plurality of members in a health plan" as claimed. See e.g. Abstract ("The disclosed technology relies upon an analysis of the electronic discharge records of a health care organization in a manner that allows extraction of only those records that were generated for patients having a specified condition (e.g., septic shock, coronary artery disease, auto-immune disease, etc.) or fall into a particular class based upon resource usage (e.g., length of hospital stay, type of surgery, or quantity and type of pharmaceuticals taken)."). Specifically, the method of Simpson "predicts or models resource usage by specific patients having a specific underlying condition." Col. 5, lines 40-42. In operation, the method of Simpson selects these specific patients, prior to performing any analysis, based on criteria such as medical condition. Col. 9, lines 26-30 ("The resulting selection vector should extract only those records of patients having a specific medical condition for which the vector was designed. The specified medical condition selected by the selection vector may be septic shock or any of a number of other conditions.); see also Col. 9, line 66-Col. 10, line 2 ("As shown there [Fig. 2A], a process 200 beings at a starting point 201 and then specifies a patient condition to be analyzed in a step 203 (e.g., sepsis, HIV infection, liver cancer, toxemia, etc.).").

Nowhere does Simpson teach or suggest performing its analysis "for each of a plurality of members in a health plan" as claimed, nor does the reference teach or suggest modifying Wong to achieve this limitation. Rather, the description of both Wong and Simpson teach away from performing any analysis, much less computing scores, for each member of health plan.

For at least this reason, the cited references fail to teach or suggest all of the claim limitations of claim 1, and Applicants respectfully request withdrawal of these rejections. The rejections to dependent claims 2-21, 23-32, and 36-47 are respectfully opposed as these claims depend from allowable claim 1.

Claim 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong et al. (5,976,082) and Simpson (6,266,645) as applied to claim 1, and further in view of Mohlenbrock et al. (5,018,067). This rejection is respectfully opposed as claim 22 depends from allowable claim 1.

Claims 33-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong et al. (5,976,082) and Simpson (6,266,645) as applied to claim 1, and further in view of Lockwood (5,706,441). These rejections are respectfully opposed as these claims also depend from allowable claim 1.

This application now stands in allowable form and reconsideration and allowance is respectfully requested.

Respectfully submitted,

DORSEY & WHITNEY LLP
Customer Number 25763

Date: August 17, 2005

By: _____
Christopher R. Hilberg, Reg. No. 48,740
(612) 492-6694